

## Listing of Claims:

1. (Currently Amended) A method for reducing a pro-multiple sclerosis immune response in a human individual, wherein the pro-MS immune response comprises a humoral immune response induced against an epitope comprising terminal alpha 2,6 linked sialic acid on shed antigen released or produced from central nervous system tissue damage during an inflammatory disease process of multiple sclerosis, the method comprising administering to the individual a composition ~~comprising~~ consisting of an affinity ligand; wherein the affinity ligand is a monoclonal antibody which is a human antibody, murine antibody, or an antibody containing both murine antibody region and human antibody region; wherein the monoclonal antibody which selectively binds to a determinant expressed on B-cells of the individual and not expressed by immune cells other than B-cells except for dendritic cells when the determinant is CD21, wherein the determinant expressed on B-cells is selected from the group consisting of CD19, CD20, CD21, CD22, Lym-1, and CD11c, ~~and a determinant expressed by B-cells and not expressed by immune cells other than B-cells~~; wherein the B cells targeted by the method and by the composition are selected from the group consisting of mature B cells, memory B cells, CD19<sup>+</sup>sTn<sup>+</sup> B cells, CD19<sup>+</sup>CD21<sup>+</sup>sTn<sup>+</sup> B cells, CD19<sup>+</sup>CD5<sup>+</sup>sTn<sup>+</sup> B cells, and a combination thereof; ~~nonmalignant B-cells~~; wherein the composition is administered in an amount effective to deplete the B cells; and wherein treatment of the individual with the composition results in reducing the pro-multiple sclerosis immune response.

2-18. (Cancelled)

19. (Withdrawn) The method according to claim 1, wherein the composition comprises a chimeric anti-CD20 monoclonal antibody.

20. (Previously Presented) The method according to claim 1, wherein the composition is administered parenterally, or in a site directed method in which the composition is delivered into an access that directly supplies central nervous tissue undergoing demyelination.

21. (Currently Amended) The method according to claim 1, wherein the composition further ~~contains~~ comprises an additional component selected from the group consisting of one or more chemotherapeutic agents, an anti-inflammatory agent, a cytolytic agent, a pharmaceutically acceptable carrier, and a combination thereof.

22. (Previously Presented) The method according to claim 1, wherein the shed antigen comprises a glycolipid comprising one or more epitopes comprising terminal alpha 2,6 linked sialic acid.

23. (Previously Presented) The method according to claim 22, wherein glycolipid comprises a ganglioside.

24. (Cancelled)

25. (Withdrawn) The method according to claim 1, wherein the composition is administered intravenously.

26. (Currently Amended) A site-directed method for reducing a pro-multiple sclerosis immune response in a human individual, wherein the pro-multiple sclerosis immune response is a humoral immune response induced against an epitope comprising a terminal alpha 2,6 linked sialic acid on shed antigen released or produced from central nervous system tissue damage during an inflammatory disease process of multiple sclerosis, the method comprising administering to the individual a composition ~~comprising~~consisting of an affinity ligand; wherein the affinity ligand is a monoclonal

antibody which is a human antibody, murine antibody, or an antibody containing both murine antibody region and human antibody region; wherein the monoclonal antibody, which selectively binds to a B-cell determinant expressed on B cells of the individual and not expressed by immune cells other than B cells except for dendritic cells when the determinant is CD21, wherein the B-cell determinant expressed on B cells is selected from the group consisting of CD19, CD20, CD21, CD22, Lym-1, and CDIM, and a determinant expressed only by B cells and not expressed by immune cells other than B cells; wherein B cells targeted by the method and by the composition are selected from the group consisting of mature B cells, memory B cells, CD19<sup>+</sup>sTn<sup>+</sup> B cells, CD19<sup>+</sup>CD21<sup>+</sup>sTn<sup>+</sup> B cells, and CD19<sup>+</sup>CD5<sup>+</sup>sTn<sup>+</sup> B cells, and a combination thereof; nonmalignant B cells, wherein the composition is delivered into an access that directly supplies central nervous tissue undergoing demyelination; wherein the composition is administered in an amount effective to deplete the B cells; and wherein treatment of the individual with the composition results in reducing the pro-multiple sclerosis immune response.

27. (Cancelled)

28. (Withdrawn) The method according to claim 26, wherein the composition comprises a chimeric anti-CD20 monoclonal antibody.

29. (Currently Amended) The method according to claim 26, wherein the composition further contains ~~comprises~~ an additional component selected from the group consisting of one or more chemotherapeutic agents, an anti-inflammatory agent, a cytolytic agent, a pharmaceutically acceptable carrier, and a combination thereof.

30. (Previously Presented) The method according to claim 26, wherein the shed antigen comprises a glycolipid comprising one or more epitopes comprising terminal alpha 2,6 linked sialic acid.

31. (Previously Presented) The method according to claim 30, wherein glycolipid comprises a ganglioside.

32. (Cancelled)

33. (Currently Amended) A method for reducing a pro-multiple sclerosis immune response in a human individual, wherein the pro-multiple sclerosis immune response is directed against an epitope comprising terminal alpha 2,6 linked sialic acid contained on shed antigen comprising a glycolipid released or produced from central nervous system tissue damage during an inflammatory disease process of multiple sclerosis, the method comprising administering to the individual a composition comprising/consisting of a monoclonal antibody that is human, murine, or both human and murine, wherein the monoclonal antibody binds to a ~~B-cell~~ determinant expressed on B-cells of the individual and not expressed by immune cells other than B-cells except for dendritic cells when the determinant is CD21, wherein the determinant is selected from the group consisting of CD19, CD20, CD21, CD22, Lym-1, and CD19, and CD21, and a determinant expressed by B-cells and not expressed by immune cells other than B-cells; wherein B cells targeted by the method and by the composition are selected from the group consisting of mature B cells, memory B cells, CD19<sup>+</sup>sTn<sup>+</sup> B cells, CD19<sup>+</sup>CD21<sup>+</sup>sTn<sup>+</sup> B cells, and CD19<sup>+</sup>CD5<sup>+</sup>sTn<sup>+</sup> B cells, and a combination thereof; nonmalignant B cells, and wherein the composition is administered in an amount effective to deplete the B cells, and wherein treatment of the individual with the composition results in reduction of the pro-MS immune response.

34. (Cancelled)

35. (Withdrawn) The method according to claim 33, wherein the monoclonal antibody comprises a chimeric anti-CD20 monoclonal antibody.

36. (Currently Amended) The method according to claim 33, wherein the composition further ~~contains~~comprises an additional component selected from the group consisting of one or more chemotherapeutic agents, an anti-inflammatory agent, a cytolytic agent, a pharmaceutically acceptable carrier, and a combination thereof.

37. (Previously Presented) The method according to claim 33, wherein glycolipid comprises a ganglioside.

38. (Currently Amended) A method for treating inflammation associated with multiple sclerosis, the method comprising depleting B cells in an human individual by administering to the individual an amount of a composition effective to deplete B cells and reduce a humoral immune response against a shed antigen comprising an epitope comprising a terminal alpha 2,6 linked sialic acid;; wherein the inflammation is caused by a humoral immune response against a shed antigen released or produced from central nervous system tissue damage during an inflammatory disease process of multiple sclerosis; wherein the composition ~~comprises~~consists of an affinity ligand consisting of a monoclonal antibody that is human, murine, or both human and murine, wherein the monoclonal antibody ~~which binds to a~~ binds to a determinant expressed on B cells of the individual and not expressed by immune cells other than B cells except for dendritic cells when the determinant is CD21, wherein the determinant is selected from the group consisting of CD19, CD20, CD21, CD22, Lym-1, and CD138, and a determinant expressed by the B cells and not expressed by immune cells other than B cells; and wherein B cells targeted by the method and by the composition are selected from the group consisting of mature B cells, memory B cells, CD19<sup>+</sup>sTn<sup>+</sup> B cells, CD19<sup>+</sup>CD21<sup>+</sup>sTn<sup>+</sup> B cells, and CD19<sup>+</sup>CD5<sup>+</sup>sTn<sup>+</sup> B cells, or a combination thereof of nonmalignant B cells.

39. (Cancelled)

40. (Withdrawn) The method according to claim 38, wherein the composition comprises a chimeric anti-CD20 monoclonal antibody.

41. (Currently Amended) The method according to claim 38, wherein the composition further ~~comprises~~contains an additional component selected from the group consisting of one or more chemotherapeutic agents, an anti-inflammatory agent, a cytolytic agent, a pharmaceutically acceptable carrier, and a combination thereof.

42. (Cancelled)

43. (Previously Presented) The method according to claim 38, wherein the shed antigen comprises a glycolipid comprising one or more epitopes comprising terminal alpha 2,6 linked sialic acid.

44. (Previously Presented) The method according to claim 43, wherein glycolipid comprises a ganglioside.

45. (Currently Amended) A method for reducing a pro-multiple sclerosis immune response comprising administering to a human individual an affinity ligand consisting of a monoclonal antibody that is human, murine, or both human and murine, wherein the monoclonal antibody~~which~~ selectively binds to a-determinant selected from the group consisting of CD19, CD20, CD21, CD22, Lym-1, and CD11c~~of on~~ a subpopulation of B cells selected from the group consisting of mature B cells, memory B cells, CD19<sup>+</sup>sTn<sup>+</sup> B cells, CD19<sup>+</sup>CD21<sup>+</sup>sTn<sup>+</sup> B cells, and CD19<sup>+</sup>CD5<sup>+</sup>sTn<sup>+</sup> B cells, or a combination wherein the determinant is not expressed by immune cells other than B cells except for dendritic cells when the determinant is CD21, wherein the B cells are nonmalignant B cells, and wherein the affinity ligand is administered in an amount effective to deplete said B cells.

46-47. (Cancelled)

48. (Previously Presented) The method according to claim 45, wherein the B cells have been activated by shed antigen comprising terminal alpha 2, 6 linked sialic acid.